



1743

Patent  
Attorney Docket: 302,670-012  
(265/084)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

**MARK WANG et al.**

Serial No.: 09/993,375

Filed: November 14, 2001

For: Methods for Increasing Detection  
Sensitivity in Optical Dielectric  
Sorting Systems

Group Art Unit: 1743

Examiner: Not Yet Assigned

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**INFORMATION DISCLOSURE STATEMENT**

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Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97–1.98, information relating to the above-identified application is hereby disclosed. The accompanying Form PTO/SB/08A provides a listing of documents that may be relevant to the subject application.

It is requested that the Examiner fully consider the art cited in the accompanying Form PTO/SB/08A, initial the left-most column of the form adjacent each cited reference, and return a copy for Applicants' records. It is further requested that the art be cited on the cover of any patent issuing from the subject application.

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In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO/SB/08A are not enclosed herewith because they were previously cited by or submitted to the Patent and Trademark Office in prior Application Serial No. 09/845,245 for which a claim for priority under 35 U.S.C. §120 has been made in the instant application. Accordingly, Applicants will provide duplicate copies in respect of the present case only if the Examiner so desires.

This statement should not be construed as a representation that more material information does not exist or that an exhaustive search of the relevant art has been made. Nor does this statement constitute an admission by Applicants or Applicants' agent that the information provided herein is necessarily prior art to Applicants' invention. Moreover, Applicants reserve the right to establish the patentability of the claimed invention over any of the listed documents should they be applied there-against as references. Please charge any deficiency or credit any overpayment to Deposit Account No. 50-0639.

Respectfully submitted,

O'MELVENY & MYERS LLP

Dated: May 23, 2003

By: David B. Murphy

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Sheet 1 of 2

## Complete if Known

Application Number 09/993,375  
Filing Date November 14, 2001  
First Named Inventor Mark M. Wang et al.  
Group Art Unit 1743  
Examiner Name Not Yet Assigned  
Attorney Docket Number 0302670-00012 (formerly 265/084)

Examiner Initials *	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	Number	Kind Code <sup>2</sup> (if known)			
	US-4253846		Smythe et al	03/03/81	
	US-4386274		Altshuler	05/31/83	
	US-4756427		Göhde	07/12/88	
	US-4886360		Finlan	12/12/89	
	US-5773298		Lynggaard et al	06/30/98	
	US-5942443		Parce et al	08/24/99	
	US-6149789		Benecke et al	11/21/00	
	US-6221654	B1	Quake et al	04/24/01	
	US-6224732	B1	Imasaka et al	05/01/01	
	US-6242209	B1	Ransom et al	06/05/01	
	US-6280967	B1	Ransom et al	08/28/01	
	US-6287758	B1	Okun et al	09/11/01	
	US-6344325	B1	Quake et al	02/05/02	
	US-6399397	B1	Zarling et al	06/04/02	
	US-6514722	B2	Palsson et al	02/04/03	
	US-2002/0058332	A1	Quake et al	05/16/02	
	US-2003/0032204	A1	Wall et al	02/13/03	
	US-2003/0047676	A1	Grier et al	03/13/03	

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	Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	WO	01/11333	A2	Ransom et al	02/15/01		
	WO	01/40454	A1	Koller et al	06/07/01		
	WO	01/68110	A1	Koller et al	09/20/01		
	WO	02/22774	A1	Eisfeld et al	03/21/02		
	EP	0635994	B1	Imasaka et al	09/23/98		
	EP	0556748	B1	Nishimura et al	10/28/98		
	JP	4-43434	A	Yasuda et al	02/14/97		Abst

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	ASHKIN et al, "Force Generation Of Organelle Transport Measured In Vivo By An Infrared Laser Trap", Nature, 348, 11/22/90, 346-348.	
	CALDWELL, "Field-Flow Fractionation", Analytical Chemistry, 60, 17, 9/1/88, 959-971.	
	DAVIES et al, "Optically Controlled Collisions Of Biological Objects", SPIE, 3260, 1/25-28/98, 15-22.	



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Application Number	09/993,375
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First Named Inventor	Mark M. Wang et al.
Group Art Unit	1743
Examiner Name	Not Yet Assigned
Attorney Docket Number	0302670-00012 (formerly 2657084)

Examiner Initials *	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	ESENER, "Center For Chips With Heterogeneously Integrated Photonics (CHIPS), DARPA Opto Centers Kickoff, 11/08/00, Dana Point, CA.	
	FLYNN et al, "Parallel Transport Of Biological Cells Using Individually Addressable VCSEL Arrays As Optical Tweezers", Sensors & Actuators B, 87, 2002, 239-243.	
	IMASAKA et al, "Optical Chromatography", Analytical Chemistry, 67, 11, 06/01/95, 1763-1765.	
	SASAKI et al, "Optical Trapping Of A Metal Particle & A Water Droplet By A Scanning Laser Beam", Appl. Phys. Lett., 60, 7, 2/17/92, 807-809.	
	SHIKANO et al, "Separation Of A Single Cell By Red-Laser Manipulation", Applied Physics Letters, 75, 17, 10/25/99, 2671-2673.	
	SONEK et al, "Micromanipulation & Physical Monitoring Of Cells Using Two-Photon Excited Fluorescence In CW Laser Tweezers", SPIE, 2678, 01/28-02/01/96, 62-68.	
	WANG et al, "All Optical Switching Of Biological Samples In A Microfluidic Device", International Photonics Conference 2000, 12/12-15/00, Hsinchu, Taiwan.	
	WANG et al, "Integration Of Optoelectronic Array Devices For Cell Transport & Sorting", Photonics West 2001, 01/20-26/01, San Jose, CA.	
	WEI et al, "Laser Trapping Microscopy As A Diagnostic Technique For The Study Of Cellular Response & Laser-Cell Interactions, SPIE, 2983, 02/10-11/97, 22-28.	
	ZAHN et al, "Fluorimetric Multiparameter Cell Assay At The Single Cell Level Fabricated By Optical Tweezers", FEBS Letters, 443, 1999, 337-340.	

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